**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-41 (Cancelled).

42. (Currently Amended) ~~An *in vitro* or *ex vivo*~~ A method of detecting a cell type of interest present or potentially present in a sample comprising treating the sample, *in vitro or ex vivo*, with lipid vesicle particles which ~~are targeted to a targeted~~ specifically bind to said cell type of interest ~~to be detected~~, said particles having at least one layer of enveloping lipids and incorporating a cytolytic peptide, which is non-covalently attached thereto, ~~which~~ wherein said peptide, in response to a predetermined extracellular metabolic signal from ~~the targeted cell~~ said cell type of interest, if present in the sample, interacts with the layer to act as or mediate the opening of pores or channels within the lipid layer to thereby modulate the permeability of the particles, said particles further incorporating a species which is ~~activated~~ released on said modulation of permeability, wherein said species produces a detectable signal in the presence of said metabolic signal, and monitoring directly or indirectly for the species,

wherein a portion of said particles have a first binding moiety and a further portion of said particles have a second binding moiety which is capable of binding with said first binding moiety whereby said particles are, or are capable of being, aggregated together, and

wherein said sample is treated with said particles under conditions such that a collection of said particles is aggregated around said cell type of interest.

43. (Withdrawn) The method according to claim 42, wherein the cytolytic peptide comprises an integral protein of the lipid layer.

44. (Withdrawn) The method according to claim 42, wherein the cytolytic peptide spans the lipid layer.

45. (Currently Amended) The method according to claim [[42]] 69, wherein the cytolytic peptide is non-covalently attached to an outer lipid layer.

46. (Currently Amended) The method according to claim [[42]] 69, wherein the particles comprise a binding agent capable of binding a particle to the cell type of interest when the particle is targeted thereto.

47. (Previously Presented) The method according to claim 46, wherein the binding agent is an antibody for binding to an antigen on the cell type of interest.

48.-49. (Cancelled).

50. (Currently Amended) The method according to claim [[48]] 42 , wherein the first binding moiety ~~on some particles~~ is avidin or a derivative thereof, and the second binding moiety ~~on other particles~~ is biotin or a derivative thereof.

51. (Currently Amended) The method according to claim [[42]] 69, wherein the cytolytic peptide is selected from the group consisting of GALA, Helical erythrocyte lysing peptide (HELP), KALA, and LAGA.

52. (Currently Amended) The method according to claim [[42]] 69, wherein the cytolytic peptide is N, Myristic-GALA.

53. (Withdrawn) The method according to claim 42, wherein the cytolytic peptide is selected from the group consisting of Amphotericin B, Alamethicin, Gramicidin, Melittin, Nigericin, P25, Polymixin B, Valinomycin, and Vibriolsin.

54. (Currently Amended) The method according to claim [[42]] 69, wherein the species is a dye.

55. (Currently Amended) The method according to claim [[42]] 69, wherein the species is an enzyme.

56. (Previously Presented) The method according to claim 55, wherein the enzyme is alkaline phosphatase, β-Galactosidase or asparaginase, or glucose oxidase.

57. (Currently Amended) The method according to claim [[42]] 69, wherein the species is a co-factor or substrate for an enzyme.

58. (Currently Amended) The method according to claim 42, wherein said cell type of interest is ~~the cells to be detected are~~ pathogenic cells.

59. (Currently Amended) The method according to claim 58, wherein said method is a method for analysing foodstuff for the presence of said pathogenic cells.

60. (Currently Amended) The method according to claim 58, wherein said method is a method for analysing water samples for the presence of said pathogenic cells.

61. (Cancelled).

62. (Withdrawn) The method according to claim 42, wherein the metabolic signal comprises a change in ion concentration.

63. (Withdrawn) The method according to claim 62, wherein the ion is $H^+$, $Na^+$, $Cl^-$, $HCO^-$, or $K^+$.

64. (Currently Amended) ~~An *in vitro* or *ex vivo*~~ A method of detecting a cell type of interest present or potentially present in a sample comprising treating the sample, *in vitro* or *ex vivo*, with lipid vesicle particles which ~~are targeted to a targeted~~ specifically bind to said cell type

of interest ~~to be detected~~, said particles having at least one layer of enveloping lipids and incorporating a cytolytic peptide, which is non-covalently attached thereto, ~~which~~ wherein said peptide, in response to a predetermined metabolic signal, which metabolic signal comprises a change in pH, from said cell type of interest ~~the targeted cell~~, if present in the sample, interacts with the layer to act as or mediate the opening of pores or channels within the lipid layer to thereby modulate the permeability of the particles, said particles further incorporating a species which is ~~activated~~ released on said modulation of permeability, wherein said species produces a detectable signal in the presence of said metabolic signal, and monitoring directly or indirectly for the species,

wherein a portion of said particles have a first binding moiety and a further portion of said particles have a second binding moiety which is capable of binding with said first binding moiety whereby said particles are, or are capable of being, aggregated together, and

wherein said sample is treated with said particles under conditions such that a collection of said particles is aggregated around said cell type of interest.

65. (Currently Amended) The method according to claim [[42]] 70, wherein the metabolic signal comprises a change in pH, wherein the pH is above 6.

66. (Currently Amended) The method according to claim [[42]] 70, wherein the metabolic signal comprises a change in pH, wherein the pH is above 7.

67. (Withdrawn) The method according to claim 42, wherein the metabolic signal comprises a change in gas concentration.

68. (Withdrawn) The method according to claim 42, wherein the metabolic signal comprises a change in carbon dioxide concentration.

69. (Currently Amended) ~~An *in vitro* or *ex vivo*~~ A method of detecting a cell type of interest present or potentially present in a sample comprising treating the sample, *in vitro* or *ex vivo*, with lipid vesicle particles which specifically bind to said cell type of interest ~~are targeted to a targeted cell type to be detected~~, said particles having at least one layer of enveloping lipids and incorporating a cytolytic peptide, which is non-covalently attached thereto, ~~which~~ wherein the peptide, in response to a predetermined extracellular metabolic signal from the cell type of interest ~~targeted cell~~, if present in the sample, interacts with the layer to act as or mediate the opening of pores or channels within the lipid layer to thereby modulate the permeability of the particles, said particles further incorporating a species which is ~~activated~~ released on said modulation of permeability, wherein said species produces a detectable signal in the presence of said metabolic signal, and monitoring directly or indirectly for the species,

wherein said cell type of interest is a ~~bacteria~~ bacterium.

70. (New) The method according to claim 69 wherein said metabolic signal comprises a change in pH.

71. (New) The method according to claim 69 wherein said sample is water.

72. (New) The method according to claim 69 wherein said sample is a foodstuff.

73. (New) A method of detecting a cell type of interest present or potentially present in a sample comprising treating the sample, *in vitro* or *ex vivo*, with lipid vesicle particles which specifically bind to said cell type of interest, said particles having at least one layer of enveloping lipids and incorporating a cytolytic peptide, which is non-covalently attached thereto, wherein the peptide, in response to a predetermined extracellular metabolic signal from the cell type of interest, if present in the sample, interacts with the layer to act as or mediate the opening of pores or channels within the lipid layer to thereby modulate the permeability of the particles, said particles further incorporating a species which is released on said modulation of permeability, wherein said species produces a detectable signal in the presence of said metabolic signal, and monitoring directly or indirectly for the species,

wherein said cell type of interest is a pathogenic cell.

74. (New) The method according to claim 73 wherein said metabolic signal comprises a change in pH.

75. (New) The method according to claim 73 wherein said sample is water.

76. (New) The method according to claim 73 wherein said sample is a foodstuff.